CLAIMS

What is claimed is:

1. A method comprising:

managing downloading of at least two firmware functions, which are accessible by more than one driver, with one processor.

2. The method according to claim 1 wherein said managing comprises reducing a risk of at least one of said drivers overwriting firmware that has been downloaded and is being used by another of said drivers.

3. The method according to claim 1 wherein said managing comprises downloading at least two said firmware functions with a single download.

4. The method according to claim 1 wherein said managing comprises managing downloading of firmware common to at least two of said drivers.

5. The method according to claim 1 wherein said managing comprises managing downloading of firmware by more than one access operation of the same driver.

6. The method according to claim 1 and further comprising, for at least one of said drivers, implementing a functionality common to another of said drivers.

7. The method according to claim 1 and further comprising, for at least one of said drivers, implementing a different functionality than another of said drivers.

8. The method according to claim 1 and further comprising initializing at least one of said drivers with information to determine a desired firmware sufficient to implement a desired functionality.

9. The method according to claim 8 and further comprising verifying for said at least one of said drivers if said desired firmware has been downloaded by another function.

10. The method according to claim 9 wherein said verifying comprises checking at least one of a register and a bit accessible by said at least two functions if said desired firmware has been downloaded by another function.

11. The method according to claim 10 wherein if said desired firmware has not been downloaded by another function, then downloading said desired firmware for said at least one of said drivers.

12. The method according to claim 11 and further comprising locking access to said desired firmware by drivers other than said at least one of said drivers.

13. The method according to claim 12 wherein said locking access comprises memory spin locking.

14. The method according to claim 12 wherein said locking access comprises PCI (peripheral component interface) bus locking on a memory location of said at least one of said drivers.

15. The method according to claim 12 wherein said locking access comprises locking a device memory register.

16. The method according to claim 11 and further comprising setting a register that said downloading said desired firmware is finished.

17. The method according to claim 16 and further comprising implementing said desired firmware.

18. The method according to claim 12 and further comprising permitting access to said desired firmware by drivers other than said at least one of said drivers.

19. Apparatus comprising:

a multi-function device that comprises at least two firmware functions which are accessible by more than one driver; and

a processor adapted to manage downloading of said at least two firmware functions.

20. Apparatus according to claim 19 wherein said processor is adapted to reduce a risk of at least one of said drivers overwriting firmware that has been downloaded and is being used by another of said drivers.

21. Apparatus according to claim 19 wherein said processor is adapted to download at least two said firmware functions with a single download.

22. Apparatus according to claim 19 wherein said processor is adapted to manage downloading of firmware common to at least two of said drivers.

23. Apparatus according to claim 19 wherein at least one of said drivers is adapted to implement a functionality common to another of said drivers.

24. Apparatus according to claim 19 wherein at least one of said drivers is adapted to implement a different functionality than another of said drivers.

25. Apparatus according to claim 1 wherein at least one of said drivers is initialized with information to determine a desired firmware sufficient to implement a desired functionality.

26. A system comprising:

a multi-function device that comprises at least two firmware functions that are accessible by more than one driver;

a processor adapted to manage downloading of said at least two firmware functions; and

a memory in communication with said processor.

27. The system according to claim 26 wherein said processor is adapted to reduce a risk of at least one of said drivers overwriting firmware that has been downloaded and is being used by another of said drivers.

28. The system according to claim 26 wherein said processor is adapted to download at least two said firmware functions with a single download.